40. (Amended) The process of claim 30 wherein said dopant has a high extinction coefficient in the wavelength range of 300 to 400 nm and absorbs radiation having a wavelength of 10.6 μm.

44. (Amended) The process of claim 30 wherein said laser used to ablate said ablation layer emits light having a wavelength of 10.6 μm.

45. (Amended) The process of claim 30 wherein said laser used to ablate said ablation layer emits light having a wavelength of 300-400 nm.

Please cancel claims 23, 24, 29, and 43.

REMARKS

As a preliminary matter, Applicants wish to thank the Examiner for taking the time to meet with their counsel on May 9, 2002, to discuss the outstanding Office Action.

Claims 15 to 45 are pending in the present application. Claims 15, 20, 27, 28, 35, 40, 44, and 45 have been amended herein, claims 23, 24, 29, and 43 have been canceled, and no new claims have been added. Applicants acknowledge with appreciation the Examiner's indication that claims 30 to 34, 41, and 42 are allowable.

Although certain rejections have been entered as to other pending claims, Applicants respectfully request withdrawal of the rejections in view of the following remarks.

I. The Specification Describes the Claimed Subject Matter

A. Claims 15 to 29 have been rejected under 35 U.S.C. § 112, first paragraph, as lacking adequate written description because the specification allegedly does not describe an ablation layer ablatable by infrared radiation. Applicants traverse the rejection because the specification clearly demonstrates that Applicants were in possession of this subject matter at the time of filing.

A patent application need not describe a claimed invention in *ipsis verbis* to comply with the written description requirement. "[A]ll that is required is that it reasonably convey to persons skilled in the art that, as of the filing date thereof, the inventor had possession of the subject matter later claimed by him." *In re Edwards*, 568 F.2d 1349, 1351-1352 (C.C.P.A. 1978)(citations omitted). To determine whether a specification contains adequate written description of the claimed subject matter, the critical question, therefore, is not whether literal description of the claimed subject matter is present in the specification, but, rather, whether review of the specification would convey the claimed subject matter to those having skill in the art. *Id.*

Adequate written description is provided if a skilled artisan, upon review of a patent specification in light of the properties and features of what is described, would envision the claimed subject matter. *In re Smythe*, 480 F.2d 1376, 1384 (C.C.P.A. 1973). In *Smythe*, the original specification and claims described a segmentation medium as air or other gas. Claims directed to fluid as the segmentation medium were later introduced into the application. The Court of Customs and Patent Appeals held that adequate written description of fluid as the segmentation medium existed in the specification because the essential

properties and features of the segmentation medium, as described in the specification, defined a fluid. *Id.* at 1384. The court found that upon review of the specification at the time of the invention, one of ordinary skill in the art would have realized that Applicants were in possession of fluid as a segmentation medium. As the court observed, because the broader concept of using "inert fluid" would naturally occur to one skilled in the art from reading appellants' description, there was "no basis for denying appellants the claims which recite the segmentizing medium broadly as an 'inert fluid.'" *Id.* at 1384.

The same logic mandates a finding that Applicants' claims are adequately described, because the instant specification describes a photosensitive element comprising an ablation layer that is ablatable by infrared radiation. For example, Example 3 describes ablation of the ablation layer of a photosensitive element by a laser operating at a wavelength in the infrared region, *i.e.*, 10.6 μm, and tests conducted using a laser at other infrared wavelengths, *i.e.*, 10.6 μm (*see* page 17, line 27 to page 29, line 9 of the specification). The skilled artisan reading this would have recognized that Applicants invention encompassed ablation in the infrared wavelength region.

This recognition would not have been altered by the teaching of Applicants' Example 3 relating to the use of YAG lasers. Although the Office Action correctly notes that the YAG laser in Example 3 was not effective in causing ablation under the particular operating conditions employed, this fact falls far short of establishing that Applicants were not in possession of the claimed inventions. Indeed, those skilled in the art would have readily understood that the absence of ablation resulted from operating the laser at the relatively low power level that was being tested in Example 3, and that this could easily be

remedied by operating the laser at a higher power level. Table II, for example, demonstrates that a CO_2 laser absorbing in the infrared region was effective in causing ablation at some intensity levels, but was ineffective in causing ablation of the layers when operating at others (*see* page 19, lines 1 to 9 of the specification). Those skilled in the art, therefore, would have understood that a YAG laser (also absorbing in the infrared region) would be effective in causing ablation of the ablation layer if simply operated at, for example, a greater intensity level. Accordingly, the mere fact that one of Applicants' experiments seeking to identify representative operating parameters did not provide optimal results does not support the conclusion that "applicant's working materials are not functional in all infrared laser wavelengths" (Office Action dated January 15, 2002, page 7).

There similarly is no basis for an allegation that the specification contains inadequate written description of an ablation layer that is opaque to non-infrared actinic radiation. Although the Office Action asserts that "opacity to 'non-infrared actinic radiation' is not found in the original disclosure and claims" (Office Action dated January 15, 2002, page 2), the specification clearly describes ablation layers that are opaque to ultraviolet radiation (*see, e.g.*, page 8, lines 1 to 7 of the specification). It is undisputed, for example, that the specification describes ablation layers that are opaque to ultraviolet light (*see, e.g.*, page 8, lines 1 to 11). Indeed, this is the primary reason that ablation layers are employed. Because those skilled in the art are aware that ultraviolet radiation constitutes non-infrared actinic radiation, it would have been clear to a skilled artisan reading Applicants' specification that an ablation layer that is opaque to ultraviolet radiation necessarily would also be opaque to non-infrared actinic radiation. One of skill in the art would therefore have

realized that Applicants were in possession of an ablation layer that is opaque to non-infrared actinic radiation, and written description support therefore exists in the specification for this subject matter.

Because the specification contains adequate written description of a photosensitive element comprising an ablation layer that is ablatable by infrared radiation and opaque to non-infrared actinic radiation, Applicants request withdrawal of the rejection.

B. Claims 20 and 35 have been rejected under 35 U.S.C. § 112, first paragraph, because the specification allegedly lacks adequate written description of a photopolymerizable layer containing a mixture of a material recited in claim 19 (or 34) and a material recited in claim 20 (or 35). Without conceding the correctness of the rejection, and to further clarify the subject matter that Applicants regard as their invention, claims 20 and 35 have been amended to recite that the polyruethane is an acid-modified acrylate polyurethane or an amine-modified acrylate polyurethane. Support for the amendment is found in the specification at, for example, page 10, lines 20 to 29. The rejection has therefore been obviated, and Applicants accordingly request withdrawal thereof.

C. Claims 29 and 43 have been rejected under 35 U.S.C. § 112, first paragraph as allegedly lacking adequate written description of an exposing step conducted under application of a vacuum. Without conceding the correctness of the rejection, and to advance prosecution, claims 29 and 43 have been canceled. Applicants accordingly request that the rejection be withdrawn.

II. **The Claims Are Not Indefinite**

A. Claims 27, 28, 44, and 45 have been rejected under 35 U.S.C. § 112, second paragraph, as allegedly indefinite because the antecedent basis of "said laser" is supposedly unclear. Applicants respectfully submit that one of skill in the art would readily understand the cited phrase to refer to the laser used to ablate the ablation layer. Nevertheless, to further clarify the subject matter that Applicants regard as their invention, and to advance prosecution, claims 27, 28, 44, and 45 have been amended to recite "said laser used to ablate said ablation layer." Support for the amendments is found in the specification at, for example, page 17, line 27 to page 19, line 9 and page 13, lines 5 to 14.

B. Claim 15 has been rejected under 35 U.S.C. § 112, second paragraph, because "ablation" is misspelled as "oblation." Claim 15 has been amended to replace "oblation" with "ablation." No new matter has been added, as one of ordinary skill in the art would recognize the existence of the error and would also recognize the appropriate correction. *In re Oda*, 443 F.2d 1200 (C.C.P.A. 1971); M.P.E.P. § 2163.07.

C. Claim 36 to 39 have been rejected under 35 U.S.C. § 112, second paragraph, as allegedly indefinite for recitation of the phrase "the at least one binder is a polyamide" because antecedent basis for "binder" is supposedly unclear. Without conceding the correctness of the rejection, and to advance prosecution, claim 36 has been amended to delete the phrase "the at least one binder is a polyamide."

D. Claim 40 has been rejected under 35 U.S.C. § 112, second paragraph as indefinite because it is allegedly unclear whether a second requirement is being added to the absorption range of the dopant, or whether the absorption range of the dopant is being

changed. Applicants respectfully submit that the claim language conveys a clear and definite meaning to one of ordinary skill in the art. Nevertheless, to further clarify the subject matter that Applicants regard as their invention, claim 40 has been amended to recite that "said dopant has a high extinction coefficient in the wavelength range of 300 to 400 nm and absorbs radiation having a wavelength of 10.6 μm." Support for the amendment is found in the specification at, for example, page 17, line 27 to page 19, line 9. Applicants believe that any ambiguity in the claim language has been clarified, and respectfully request withdrawal of the rejection.

II. The Scott Paper Patent Does Not Anticipate the Claims or Render Them Obvious

Preliminarily, to further clarify the subject matter that Applicants regard as their invention, claim 15 has been amended to recite that the infrared ablation layer comprises at least one binder that is a polyacetal, polyacrylic, polyamide, polyimide, polybutylene, polycarbonate, polyester, polyethylene, polyphenylene ether, or polyethylene oxide. Claims 23 and 24 have been canceled. Support for the amendments is found in the specification at, for example, page 10, lines 3 to 7.

A. Claims 15 to 17, 21, 23, and 25 to 26 have been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Great Britain Patent No. 1,492,070 (hereinafter "the Scott Paper patent"). Applicants request reconsideration and withdrawal of the rejection because the Scott Paper patent fails to disclose or suggest every claim element. The patent, for example, describes printing plates that contain a dispersion of metal or carbon particles in a nitrocelluose binder. Since nitrocellulose binders are different from those claimed, and

since the patent fails to disclose or suggest binders other than nitrocellulose, the patent fails to disclose or suggest any claimed invention. *Atlas Powder Co. v. E.I. Du Pont de Nemours & Co.*, 750 F.2d 1569, 1574 (Fed. Cir. 1984) (holding of no anticipation affirmed because reference failed to disclose or suggest all claim elements).

B. Claims 15 to 17, 21, 23, and 25 to 27 have been rejected under 35 U.S.C.§ 103(a) as allegedly obvious over the Scott Paper patent. Applicants respectfully traverse the rejection because the Office Action has failed to establish *prima facie* obviousness.

To establish *prima facie* obviousness in a genus-species situation, as in any other 35 U.S.C. §103 case, it is essential that an examiner identify some motivation or suggestion to make the claimed invention in light of the prior art teachings. M.P.E.P. § 2144.08 (citing *In re Brouwer*, 77 F.3d 422, 425 (Fed. Cir. 1996)). Because "the fact that a claimed species or subgenus is encompassed by a prior art genus is not sufficient by itself to establish a *prima facie* case of obviousness," the Patent Office must provide evidence of a motivation to select a particular species or subgenus from a prior art genus. M.P.E.P. § 2144.08 (citing *In re Baird*, 16 F.3d 380, 382 (Fed. Cir. 1994)); *In re Jones*, 958 F.2d 347, 350-51 (Fed. Cir. 1992).

Significantly, however, the Office Action does not identify any evidence indicating that those of ordinary skill in the art would have been motivated to select the claimed binders from the genus of "organic binders" described by the Scott Paper patent. The genus of organic binders described by the Scott Paper patent encompasses vast numbers of binders, and the patent does not suggest the claimed polyacetal, polyacrylic, polyamide,

polyimide, polybutylene, polycarbonate, polyester, polyethylene, polyphenylene ether, and polyethylene oxide binders. The Scott Paper patent, therefore, fails to render the cited claims obvious, and Applicants accordingly request withdrawal of the rejection.

III. The Fan Patent Does Not Anticipate the Claims

Claims 15 to 19, 22 to 26, and 29 have been rejected under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. Patent No. 6,238,837 (hereinafter "the Fan patent"). Applicants respectfully traverse the rejection because these claims are entitled to a filing date that is early enough that the Fan patent is not available as prior art.

The Office Action mistakenly suggests that support for claims 15 to 29 is not found in priority application number 08/082,689, filed June 25, 1993, and that the Fan patent is therefore somehow available as prior art against the claims. As discussed in part I of this Response, however, the present specification provides support for claims 15 to 28. Since the supporting disclosure appears nearly verbatim in application number 08/082,689, the claims are entitled to the benefit of the June 25, 1993 filing date of that patent application. Because this date is more than twenty-two months before the earliest filing date to which the Fan patent purports to be entitled, the Fan patent is not prior art against the present claims. Accordingly, the rejection for alleged anticipation is improper, and should be withdrawn.

Conclusion

Applicants submit that the claims are in condition for allowance. An early Office Action to that effect is earnestly solicited.

DOCKET NO.: POLY-1193 **PATENT**

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**Version with markings to show changes made.**"

Respectfully submitted,

Date: May 13, 2002

Jane E. Inglese, Ph.D.
Registration No. 48,444

WOODCOCK WASHBURN LLP
One Liberty Place - 46th Floor
Philadelphia, PA 19103
Telephone: (215) 568-3100
Facsimile: (215) 568-3439

DOCKET NO.: POLY-1193 **PATENT**

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Specification:

Please delete the paragraph beginning at line 1 of page 17 and ending at line 10 of page 17 and replace it with the following new paragraph.

Example 2

Preparation of Uvinul D 50 modified Cellulosic-Based Water-Wash [Blip] Slip Film for Amine-Modified Polyurethane (AMPU) Aqueous-Developable Flexographic Plates

In this Example, another type of slip film, a cellulose film adapted for use with a water-washable flexographic printing plate, is modified with a UV absorber. The concentration and thickness found in the previous Example were utilized to ensure the maximum UV absorption by the film.

In the Claims:

Please amend claims 15, 20, 27, 28, 35, 40, 44, and 45 as follows.

15. (Amended) A process comprising the steps of:

- providing a photosensitive element comprising:

a backing layer;

at least one layer of photopolymerizable material on said backing layer;

at least one ablation layer which is ablatable by infrared radiation and opaque to non-infrared actinic radiation, wherein the

infrared ablation layer is in direct contact with the at least one photopolymerizable layer and has a surface opposite the photopolymerizable layer capable of being exposed to laser [oblation] ablation, the infrared ablation layer comprising:

at least one infrared absorbing material;

at least one binder that is a polyacetal, polyacrylic, polyamide, polyimide, polybutylene, polycarbonate, polyester, polyethylene, [cellulosic polymer,] polyphenylene ether, or polyethylene oxide;

wherein the infrared ablation layer is ablatable from the surface of the photopolymerizable layer upon exposure to infrared laser radiation; and

ablating said ablation layer using a laser, thereby providing ablated and unablated areas forming an image.

20. (Amended) The process of claim 19 wherein said [photopolymerizable layer includes] polyurethane is an acid-modified acrylate polyurethane or an amine-modified acrylate polyurethane.

27. (Amended) The process of claim 15 wherein said laser used to ablate said ablation layer emits light having a wavelength of 10.6 μm.

28. (Amended) The process of claim 15 wherein said laser used to ablate said ablation layer emits light having a wavelength of 300-400 nm.

35. (Amended) The process of claim 34 wherein said [photopolymerizable layer includes] polyurethane is an acid-modified acrylate polyurethane or an amine-modified acrylate polyurethane.

40. (Amended) The process of claim 30 wherein said dopant has a high extinction coefficient in the wavelength range of 300 to 400 nm and absorbs radiation having a wavelength of 10.6 μm.

44. (Amended) The process of claim 30 wherein said laser used to ablate said ablation layer emits light having a wavelength of 10.6 μm.

45. (Amended) The process of claim 30 wherein said laser used to ablate said ablation layer emits light having a wavelength of 300-400 nm.

Claims 23, 24, 29, and 43 have been canceled.